

MONTHLY WEATHER REVIEW.

Editor: Prof. CLEVELAND ABBE.

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INTRODUCTION.

The REVIEW for September, 1895, is based on reports from 2,760 stations occupied by regular and voluntary observers, classified as follows: 149 from Weather Bureau stations; 35 from U. S. Army post surgeons; 2,416 from State Weather Service and voluntary observers; 34 from Canadian stations; 96 received through the Southern Pacific Railway Company; and 30 from U. S. Life-Saving stations; international simultaneous observations are received from a few stations and

used together with trustworthy newspaper extracts and special reports.

The WEATHER REVIEW is prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, chief of that division. A special acknowledgment is made of the hearty cooperation of Prof. R. F. Stupart, Director of the Meteorological Service of the Dominion of Canada.

CLIMATOLOGY OF THE MONTH.

GENERAL CHARACTERISTICS.

The mean temperature was deficient in the extreme southern and northwestern borders, but throughout the greater part of the United States was decidedly above normal. The precipitation was in excess in Oregon and adjacent regions, but was deficient elsewhere. The accumulated precipitation shows a continuance of the drought in the Middle Atlantic, Ohio Valley, Lake, and adjacent regions. The rivers have continued at an unusually low stage of water. The principal storm of the month was that which passed over the Lake Region during the 28th and 29th. As a rule the month was free from general storms of any importance, but severe local storms occurred.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers, not reduced to standard gravity, and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border.

The mean pressures during the current month were highest over the South Atlantic States, and were also high off the coasts of Washington and Oregon. The highest were: Charleston, 30.11; Knoxville and Chattanooga, 30.10; Fort Canby, 30.07. Mean pressures were lowest in Arizona, and were also low in the Canadian Provinces. The lowest were Battleford, 29.81; Yuma, 29.77.

As compared with the normal for September, the mean pressure was in excess on the south Atlantic and Gulf coasts and on the coasts of upper California, Washington, and Oregon. The greatest excesses were: Charleston, 0.05; New Orleans and Galveston, 0.04; Fort Canby, 0.06. Pressures were deficient

over the northern parts of the interior; the greatest deficits were: Duluth and Port Arthur, 0.11; Winnipeg and Minnesota, 0.10.

As compared with the preceding month of August, the pressures, reduced to sea level, show a fall in southern Florida, southern California, Washington, and in a small region in Montana, North and South Dakota, and Iowa, but a rise over the rest of the country. The maximum rises were: Washington and Northfield, 0.11; Boston, New Haven, New York, Philadelphia, Baltimore, Columbus, Ohio, Cincinnati, Indianapolis, and Louisville, 0.10. The greatest fall was Tatoosh Island, 0.08.

The regular diurnal variation in pressure is shown by the hourly means given in Table V for 28 selected stations out of 67 that maintain barograph records.

AREAS OF HIGH AND LOW PRESSURE.

[By Prof. FRANK H. BIGELOW.]

The tracks of eight areas of high pressure, including the subdivision to number VI, are plotted on Chart IV for the month of September. This chart shows that the centers of high areas linger more persistently near the coast lines than in any other portion of the United States. On the north Pacific Coast there is such an accumulation; also in the neighborhood of the south New England coast; a single high, No. III, hung near the Carolina coast for seven days (September 16 to 23), during which interval the eastern districts were maintained at unusually high temperatures, and a severe drought prevailed. With the exception of No. III, the tracks all lay north of the thirty-fifth parallel.

The tracks of nine low pressure areas are plotted on Chart I, and they are so strictly confined to the northern circuit, near the mean track, that, with one instance excepted (No. VII, for thirty-six hours), they all lie north of the fortieth parallel throughout their course. Six originated near the eastern edge of the high land or the Rocky Mountain Divide,